

Guest speaker and cyber security expert Bryant Tow discusses cyber threats.

# **Cyber Security Begins and Ends With You**

**Cyberspace Security Awareness Month** 

Can you imagine what would happen if the nation suddenly lost access to the Internet or cell phone connection? Our fundamental reliance on the digital infrastructure for communications makes it a national asset, which has elevated cyber security to one of our country's most important national security priorities.

This year marks the ninth annual National Cyber Security Awareness Month, sponsored by the Department of Homeland Security and National Cyber Security Alliance. On Oct. 11, NASA's IT Security Awareness and Training Center (ITSATC), with the support of Glenn's IT Security Branch staff, hosted a Cyber Security Awareness Day at Glenn. The event focused on the theme "STOP, THINK, CONNECT" to reinforce how everyone shares the responsibility to ensure a safe, secure and resilient cyber environment at work and home.

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# **Initiative Tackles Issues With Creativity Tools and Methods**

Tired of ineffective group "brainstorming" sessions that don't seem to go anywhere? Looking for alternative ways to address vital issues? NASA Glenn's Creativity & Innovation (C&I) Initiative offers an environment to boldly challenge the status quo and openly discuss radical new ideas and approaches to problem solving.

A grassroots initiative, C&I was cofounded last year by Dr. Bruce Steinetz,
Structures and Materials Division, and
Jim Zakrajsek, Tribology and Mechanical
Components Branch, with the help of
employee volunteers across the center
who want to spark more creativity and
innovation at every level of the Glenn
community. Director of Research &
Technology Dr. Jih-Fen Lei championed
the initiative, with the support of
Director of Center Operations Robyn
Gordon, who provided room space and
resources.

Operating under Dr. Edward de Bono's principles of conceptual thinking, C&I

equips employees with modern tools that aid in discovering solutions to increasingly challenging problems. Using these tools and methods, instructors take individuals and/or teams through processes that enhance creativity and break down traditional patterns of thinking.

Sessions are held in a designated area within the Glenn Science & Engineering Library, known as the C&I Commons, building 142, room 160D. The space offers a formal meeting area with an audiovisual system and white boards as well as an informal area with soft, comfortable seating. The room is available weekdays from 8 a.m. to 5 p.m. C&I members and library staff are available to facilitate "Ideation" sessions and provide supplemental material to enhance the creative thinking and collaborative experience.

The C&I team invites employees to become better acquainted with the initiative during an open house titled "C&I: Out of the Box" on Nov. 16 from 1:30 to 3:30 p.m. in the Glenn Briefing Center. An outside guest speaker

will talk about creativity and innovation from 1:30 to 2:30 p.m., i m m e d i a t e l y followed by time to talk with team members, explore ways to get involved and enjoy refreshments.



For more information about C&I and to read about success stories, visit ci.grc.nasa.gov.

## In This Issue

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## Straight from the Director



# **Giving Thanks**

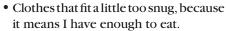
During this month of Thanksgiving, I've been reflecting on the things for which I am most grateful. Among them is our talented group of NASA Glenn employees. Thank you for your generosity and selflessness. You've again demonstrated both of these attributes. Our centerwide Combined Federal Campaign is at its halfway point, yet we are already three-quarters to our goal. Your kindness seems to know no bounds.

Thank you for the work you do to make our center great. You provide awardwinning research and services. Without your commitment, creativity and high standards, we would not be the thriving center we are today.

True, there are days when setbacks occur and life gets in the way, but I think those are only challenges to make us realize the good things when they happen.

I'm reminded to be thankful for:

- The alarm that goes off in the early morning hours, because it
- Center Director Lugo means I'm alive.



- Taxes I pay, because it means I'm employed.
- Leaves that needs raking, windows that need cleaning and gutters that need fixing, because it means I have a home.
- My heating bill, because it means I am
- The lady behind me in church who sings off key, because it means I can hear.
- Weariness and aching muscles at the end of the day, because it means I have been productive.
- And even the complaints I hear about our government, because it means we have freedom of speech.

Dr. Dale Robbins writes, "I used to think people complained because they had a lot of problems. But I have come to realize they have problems because they complain. Complaining doesn't change anything or make situations better. It amplifies frustration, spreads discontent and discord, and can invoke an invitation for the devil to cause havoc with our lives." Complaining is not a solution for anything; rather, I submit we should be thankful and reflect on the perspective it offers us.

In my case, I feel extraordinarily grateful to be serving with you. As Center Director, I have seen firsthand how you go about your jobs, exhibiting impressive ability, dedication, expertise and selflessness.

So, at a time when we traditionally give thanks, allow me-on behalf of Jim Free, Janet Watkins and I-to thank you for your hard work and extend our best wishes for a safe, wonderful holiday season.

# **Cyber Security Professionals Educate Users**

Continued from page 1

Glenn's ITSATC Program Manager Dr. Brenda Ellis welcomed employees and provided the introduction to the morning program that included remarks from NASA Headquarters' Deputy CIO of IT Security Valarie Burks and ITSATC Program Executive Evelyn Davis; Glenn's CIO Randy Humphries, CIO IT Security Officer Paul Nelson, and IT Security Systems Lead Greg Carpenter (WYLE).

Keynote speaker Bryant Tow, from InfraGuard National Alliance, focused

on the complexities of cyber threats associated with a diverse consumer base and information access via high-tech tools, i.e., tablets, laptops, iPhones and dropboxes. He alerted the audience to how the lure of free software or the exchange of game apps often leads to malware infection.

"Microsoft reported the main threat in the first half of the year was a software activation key generator used to spread malware mainly to users of its Angry

> Birds Space and Battlefield: Bad Company," he said.

> In the afternoon, cyber security professionals at NASA Glenn and vendors conducted a fair to educate employees on cyber security threats and the importance of staying safe online.





- Set strong passwords, and don't share them with anyone.
- Keep a clean machine—install regular updates to your operating system, browser and other critical software applications.
- Maintain an open dialogue with your family, friends and community about Internet safety.
- Carefully choose the amount of personal information you post online and use privacy settings to avoid sharing information widely.
- Be cautious about what you receive or read online—if it sounds too good to be true, it probably is.

The day's activities provided important lessons learned of how our increased connectivity broadens benefits and increases opportunity for broadly shared risks. The bottom line: STOP and THINK before you CONNECT.

-By S. Jenise Veris



# Silver Snoopy and Space Flight Awareness Awards

**Enhancing mission safety and success** 

NASA Glenn celebrated outstanding "dedication to detail" during a 2012 Silver Snoopy and Space Flight Awareness (SFA) Team awards ceremony and reception on Oct. 15.

#### Silver Snoopy Awards

This ceremony was the exclamation point for Silver Snoopy Award winners, who earlier that day received a surprise visit from Center Director Ray Lugo and Associate Director of External Programs and astronaut Gregory "Box" Johnson, announcing each recipient's selection.

"We (astronauts) recognize that in the chain of events leading to an accident, a single link in the chain can prevent the mishap. While managers and team leads call the shots, thousands more support decisions that can cause a mission to succeed or fail," Johnson affirmed during the reception. "Each one of you has made a huge difference in your realm of expertise to significantly enhance mission safety and success. The Silver Snoopy is our way to personally thank you for helping us complete the mission and return home safely."

The following 13 employees received a Silver Snoopy Award:

Robert Comeau, Zin Technologies, for outstanding software engineering in the development of the Telemetry Acquisition and Display System used for testing, validation and operation of the Fluids and Combustion Facility (FCF).

Vicki Crable, Systems Verification and Operations Branch, for strong leadership and creativity as deputy lead systems engineer for the Space Communications and Navigation (SCaN) Testbed Project.

Dr. Paul Ferkul, Combustion and Reacting Systems Branch, for extensive and unique contributions to spacecraft fire safety revealing the importance of low-velocity airflows and partial-gravity conditions on the flammability of materials and their resultant fire risk.

Pictured, left to right, seated: Comeau, Dr. Lewandowksi, Crable, Ginty, Fernandez and Matthews. Standing, left to right: Astronaut Johnson, Roach, Dr. Ferkul, Hawersaat, Hickman, Hilderman, Ramsey and Center Director Lugo.



C-2012-4892

Photo by Bridget Caswel

René Fernandez, Reliability and System Safety Engineering Branch, for exceptional dedication and technical excellence in providing safety and mission assurance leadership to the schedule-driven Communications, Navigation, and Networking reconfigurable Testbed (CoNNeCT) Project.

Carol Ginty, Exploration Flight and Development Project Office, for leading completion of the Space Environmental Test (SET) facility at Plum Brook Station, and delivering the facility to the Orion Project under extremely tight budget constraints.

Robert Hawersaat, ISS and Human Health Office, for leadership in the recovery of the Structure and Liftoff in Combustion Experiment (SLICE) hardware on the International Space Station (ISS).

J.MarkHickman, ISS and Human Health Office, for outstanding contributions as project manager for the Flame Extinguishment Experiment (FLEX) series of investigations.

Don Hilderman, Quality Engineering and Assurance Branch, for exceptional dedication and technical excellence in providing quality assurance to the schedule-driven CoNNeCT project.

David Kunath, SAIC/IT Operations Office, for outstanding leadership in support of the Glenn Network Operations Center, and the exceptional leadership emplified in maintaining the Lewis Field and Plum Brook Station networks.

Dr. Beth Lewandowski, Bioscience and Technology Branch, for outstanding accomplishments in determining the probability of astronauts experience of in-flight wrist fracture, postflight hip fracture and severe in-flight chest and abdominal injury for NASA's Integrated Medical Model.

Ronald Matthews, Institutional Services Branch, for dedicated efforts to support the design/build procurement for the Vibro-acoustic Test Capability (VTC) at NASA's Glenn Research Center.

Dr. John Ramsey, Applied Structural Mechanics Branch, for contributions in leading the design modifications of the NASA Space Launch System (SLS) and superior technical accomplishments of the ARES 1-X Interstage-1 instrumental to the success of the Agency's space program.

Timothy Roach, Mechanical Design Branch, for mastery of the Digital Enterprise Lean Manufacturing Interactive Application simulation software and timely development of the Service Module and Crew Module assembly simulation, which aided understanding of the assembly progress and early identification of design issues.

### Space Flight Team Awards

During the ceremony, Lugo and Johnson also presented SFA Team Awards that recognize small groups of employees, who demonstrate exemplary teamwork while accomplishing a particular task or goal in support of the human space program. The projects and Glenn team members recognized include the following:

Continued on page 6

### **News and Events**

### Astronaut Talks at Glenn Visitor Center >

On Oct. 6, astronaut Mike Foreman, pictured right, traveled to NASA Glenn's Visitor Center at the Great Lakes Science Center to give a presentation on NASA's Commercial Crew Program, which is guiding the development of several spacecraft and rockets expected to carry astronauts to the International Space Station by the middle of the decade. This innovative program allows industry to make advances in technology and manufacturing while NASA blends in its own expertise gained during 50 years of launching humans into space.



Photo by Mark Horning/Examiner.com



Photo by Katherine Martin

### Glenn Answers Academic Challenge

Steve Kurrent and Eric Blackburn of WEWS NewsChannel5 visited Glenn on October 4 to film a segment for the station's Academic Challenge program. Rodger Dyson, pictured at Glenn's Extreme Environment Rig, answered a question about Venus for the show. Teams of local high school students will compete to answer the question, along with others under the topic of "An "N" in the middle." The show usually airs on Saturday evenings during the winter. The segment that includes Dyson is slated to air in January 2013.

## Hispanics Embrace Opportunities >

In his keynote address at Glenn's Hispanic Heritage Month Observance Event, Oct. 10, José C. Feliciano, attorney and chairman of the local Hispanic Roundtable, shared how he personally overcame obstacles of inequality and continues his advocacy for Hispanic opportunities, since arriving in Cleveland from Puerto Rico 60 years ago. He also stressed the importance of Hispanics retaining their ethnicity for diverse thought that enriches America. Following the event, authentic Hispanic cuisine was available for purchase.



## **Events Offer** International Flair



Mark Your Calendar

Do some holiday shopping and enjoy lunch with an international flair during the Diversity Day and Combined Federal Campaign (CFC) International Food Fair events on Thursday, Nov. 15, in the Administration Building Auditorium.

The 4th annual Diversity Day, from 10 a.m. to 3 p.m., features fair trade and multicultural vendors from around the Cleveland community displaying items for sale, as well as information on Glenn's Advisory Groups. POC: Lynda Glover, 3-2463.

The 2nd annual CFC International Food Fair, beginning at 11 a.m. and running through 2 p.m., offers a variety of food items, prepared and donated by fellow employees, for purchase. Proceeds will go to local CFC charities. POC: Frederic Holland, 3-8367.

## NASA Technology Days: Nov. 28-30-

NASA Administrator Charles Bolden will participate in NASA Technology Days, a 3-day public technology showcase, taking place at the Cleveland Public Auditorium and Conference Center, Nov. 28-30. The technology showcase will bring together stakeholders from industry, academia and the U.S. government to engage in strategy development, partnership building and methods of fostering technology transfer and innovation. Visitors will explore over 90 technologies in the NASA showcase. The event is free and open to the public. To register, visit www.aiaa.org/nasatechdays.



# Plum Brook Retiree Reunion Draws Enthusiastic Crowd

Nearly 200 retirees and guests celebrated with good company and good food during the 6th Plum Brook Station (PBS) Retiree Reunion on Sept. 22. Attendees spent the day reminiscing about past accomplishments and discussing the exciting challenges ahead for the agency.

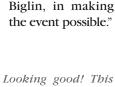
PBS Director David Stringer and Deputy Director David Taylor welcomed the valued guests and highlighted a variety of PBS activities, including current and upcoming testing to be completed at the Space Power Facility and the Spacecraft Propulsion Research Facility. The day's festivities also included a guided tour of the Space Power Facility and time to shop for NASA memorabilia at the Exchange Store, which was set up in the Engineering Building.

included retirees William Brown (chairman), Earl Boitel, Tom Brink, Jim Hurst, Harry McCune, Mike Sudsina and Hank Pfanner and PBS staff Geneva Biglin (SGT) and Jack Crooks (SAIC).

The Reunion Committee members

"The reunion was a wonderful time to look back and look ahead," Brown said. "The committee is grateful for

> the enthusiasm and assistance provided by the present Plum Brook staff, especially Geneva Biglin, in making the event possible."



group photo was taken at the Plum Brook Station reunion.



Photo by Larry Opper

# **Center Gains Visibility Through Community Outreach**

### **Employees Share the Story**

NASA Glenn's Community Relations team, with the help of employees throughout the center, brought NASA's mission to over 750,000 people this year. The team participated in more than 40 outreach events, such as air shows, festivals and parades, providing information on NASA aimed at increasing the agency's visibility and contributing to scientific literacy.

Along with an ambitious schedule of time-honored events, the team expanded its reach by adding several new venues to its calendar. The Fairfax Arts and Heritage Celebration in Cleveland, the Indianapolis Black Expo in Indiana, and the Great New England Air Show in Massachusetts, represent just three new and exciting stops on the 2012 outreach calendar.



Photo by David DeFelice



Photo by David DeFelice

On the road highlights, clockwise: Exhibit Specialist John Oldham at the Cleveland Air Show • Journey to Tomorrow Trailer at the "What's Your Favorite Space?" event at the Kimpton's Eventi Hotel, New York City • Eva the inflatable astronaut (played by Dimeta Hughes) with woolly bear enthusiast at the Woollybear Festival, Vermilion, Ohio.

Associate Director of External Programs and astronaut Greg Johnson participated in several of the activities by signing autographs. Additionally, the popularity of the Journey to Tomorrow (JTT) interactive trailer increased the demand for the team to stretch beyond Glenn's 6-state region.

The implementation of an online staffing database this year has enabled the outreach team to broaden participation and communicate more easily with employees who are interested in helping to share the NASA story. Access the database (internal only) via http://outreach.grc.nasa.gov to learn more about outreach goals and to be notified about future staffing opportunities.



Photo by Doreen B. Zudell

### Retirements

Donald C. Braun, Turbomachineryand Heat Transfer Branch, Aeropropulsion Division, retired Nov. 2, 2012, with 37 years of NASA experience.



Jane M. Cochran, Exploration Systems Branch, Procurement Division, retired Nov. 3, 2012, with 34 years of NASA experience.

# **Retirees Can** Give to CFC

Retirees are eligible to participate in the Combined Federal Campaign (CFC), and are invited to join NASA Glenn in making an impact in the community and the world through charitable giving. Retirees are also eligible to receive CFC appreciation gifts when donating at one of the leadership giving levels (\$250 and above) and be recognized in the 2013 North Coast CFC Contributor's Guide (www.northcoastcfc.org). Gifts are tax deductible. Checks can be made out to the Combined Federal Campaign and sent by Dec. 15 to Ashley Murry, NASA Glenn Research Center, 21000 Brookpark Road, MS 60-2, Cleveland, OH, 44135. For questions, contact Anne Mills at 216-433-8715 or e-mail Anne.Mills@nasa.gov. Your support is greatly appreciated!



## In Appreciation

A heartfelt "thank you" for sharing in my sorrow on the loss of my wonderful husband Andrew Szuhai. Thank you for all the beautiful cards, flowers, kind words and donations to the Cleveland Clinic Hospice. Good people will be remembered as a blessing—especially the good people like you at NASA Glenn.

-Adele Szuhai

## **Awards, Honors and Promotions**

### **Space Flight Team Awards**

Continued from page 3



CoNNeCT Safety and Mission Assurance Team Award

Photos by Bridget Caswell

Pictured above, left to right: astronaut Greg Johnson, Don Hilderman, John Brinkman, Maria Havenbill, René Fernandez, Richard Plastow, Thong Luu, Angela Windau and Center Director Lugo. Glenn members missing: Gilbert Williams, Scott Darpel, Michael Capelety, Myron Wilkinson, Mark Luboski, Phuoc Thai, Leon Dozier, Dana Mulder and James Smith.



### Glenn Harness Team Award

Pictured, left to right: Johnson, Christopher Sheehan, Gail Perusek and Center Director Lugo. Not pictured: Marsha Nall, Jim Bruewer and Mark Savina.



C-2012-4895

# SCaN Testbed External Interfaces Team

Pictured, left to right: Johnson, Dwayne Kiefer, Elizabeth Gray, Ross Miller and Center Director Lugo.



### SCaN Testbed Spacewire Tiger Team Award

Pictured, left to right: Johnson, Scott Lawyer, Dale Walter, Timothy Ruffner and Center Director Lugo. Not pictured: Robert Button, David Carek, Linda Moore, Andrew Jalics, Larry Vincent, Thomas Hudach and Eric Anderson.

-By S. Jenise Veris

### Walker Honored at Women of Color Awards

Darlene Walker, an education program specialist in NASA Glenn's Educational Programs Office, was recognized as a Technology All-Star during the annual Women of Color Awards Gala hosted by General Dynamics Corporation and Women of Color magazine, Oct. 11 to 13 in Dallas. Walker was chosen for her educational leadership and success as the project manager for the NASA Science, Engineering, Mathematics and Aerospace Academy (SEMAA) and participation on NASA's Education



Portfolio Development Team. The Women of Color Awards recognize both seasoned and emerging leaders for their value and business impact to the sustainability of diversity and inclusion initiatives.

## **In Memory**



Jereb

Marguerite G. "Marge" Jereb, 83, who retired in 1978 with 30 years of NASA service, died Sept. 3. Jereb held positions of leadership throughout a career focused on various phases of the center's

developing computer services. Prior to retiring, she was chief of the Computer Systems Office. An affable computer expert, Jereb was a member of the Lewis Supervisory Club, the Incentive Awards Committee, the NASA Exchange Council, the Nasairs Flying Club and the Lewis Film Classics Committee, as well as the American Institute of Aeronautics. Jereb received the Federal Executive Board's prestigious Career Service Award and was one of the Lewis' honorees in the salute to the International Women's Year (1975), among other awards during her career.

Lawrence "Larry" Schwartz, 99, who retired in 1976 with 28 years of combined federal service to the Department of Defense and NASA, died Dec. 27, 2011. Schwartz was a Renaissance man and outstanding member of NASA Lewis' Energy Conversion Division. His efforts aided significant advances in electric power and propulsion technologies to serve NASA and the energy-related needs of other agency missions during the 1960s and 1970s. Schwartz' career was primarily dedicated to solar cell







#### **Article Submissions**

News items and brief announcements for publication in the December issue is noon, Nov. 23. Larger articles require at least one month notice.

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Hermes Award 2009-2012





research (i.e., improving efficiency and resistance to radiation damage). He received NASA's Outstanding Leadership Medal for solar energy research in 1964. He later redirected his research to batteries used on electric vehicles.

Andrew "Andy" B. Szuhai, 89, who retired in 1998 with 40 years of NASA service, died Sept. 10. Szuhai joined the NACA/NASA workforce as an apprentice after serving as a pilot in the U.S. Navy during WWII. Szuhai was selected to several positions of increasing responsibility over his career, including Equipment Utilization Section head; chief of the Lewis Safety Office, the Engine Research and Space Power Branch, and the Facilities Operations Division. Prior to retiring



Szubai

Szuhai was the Center Operations and Maintenance manager, a position he held for 20 years. In 1984, Szuhai was awarded the Exceptional Service Medal. He was an officer and active member of the Lewis

Social Activities Committee (LeSAC) and Supervisor's Club. Szuhai became a member of Glenn's Speakers Bureau in retirement to help promote NASA and support the center's educational outreach. He is survived by his wife of nearly 30 years, Adele, who retired from the Procurement Division in 2008.

### Calendar

#### **Attention Retirees**

Center Director Ray Lugo will host a briefing for retirees to update them on activities at NASA Glenn Research Center on Dec. 10, 2012, at 1 p.m. in the Briefing Center, building 8.

Register online at http://retiree.grc.nasa.gov or call Meghan Ganss,216-433-5835 or Brunie DeJesus, 216-433-2789

IFPTE LOCAL 28, LESA MEETING: LESA will hold its next membership meeting on Wednesday, Nov. 14 at noon in the Employee Center's Small Dining Room.

NATIVE AMERICAN MONTH OBSERVANCE: NASA Glenn's Advisory Group for Native Americans will host U.S. Senate Solicitor of the Department of the Interior Hilary Tompkins, Wednesday, Nov. 14, from 9:30 to 11:30 a.m. in the Administration Building Aud. To learn more about Solicitor Tompkins, visit http://www.doi.gov/whoweare/hilarytompkins.cfm. Cultural performances are also planned.

RETIRED WOMEN'S LUNCHEON: The next NASA Retired Women's Luncheon will be Thursday, Nov. 15, at Pier W, 12700 Lake Road, Cleveland, at noon. Please reserve your place by calling Gerry Ziemba, 330-273-4850.

The Holidays are Coming!

Exchange Online Gift Shop

http://www.nasagiftshop.com

## New and Improved Monthly Forum: GRC CONNECTIONS

Glenn's new and improved Monthly Forum, now known as GRC CONNECTIONS, premiered last month to a capacity crowd. This revised venue features both technical and non-technical topics that are relevant to all staff, as well as fosters a learning culture at the center. The new, 45-minute session features only one topic and a facilitated question and answer session with the audience.

The next GRC CONNECTIONS will be held Dec. 12, from 10 to 10:45 a.m. in the Briefing Center Auditorium, building 8. More details on the topic will be advertised on *Today@Glenn*. For comments or questions, contact Howard Ross, 3-2562 or Harvey Schabes, 3-5309.

#### **National Aeronautics and Space Administration**

John H. Glenn Research Center at Lewis Field 21000 Brookpark Road Cleveland, Ohio 44135

#### www.nasa.gov

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# **NASA Recognizes Glenn Software and Team**

Glenn-developed software that enables users to tie simulation tools together to build systems-level engineering design environments was selected First Runner Up in NASA's 2012 Software of the Year competition. The award recognizes innovative software technologies that significantly improve the agency's exploration of space and maximize scientific discovery on Earth.

The Glenn software, OpenMDAO, is an open-source software that dramatically simplifies and accelerates the use of multidisciplinary analysis optimization (MDAO) tools and algorithms for engineering problems. Written in the Python programming language, OpenMDAO makes it easy to link high-fidelity models, such as Finite Element Analysis or Computational Fluid Dynamics, into a design problem with lower fidelity analysis tools.

Glenn's OpenMDAO team from the Multidisciplinary Design Analysis Optimization Branch, Aeropropulsion Division, includes Justin Gray and Scott Townsend of Vantage Partners LLC, and Keith Marsteller, Kenneth Moore and Brett Naylor of DB Consulting Group Inc.

"The software comes prepackaged with a number of tools to give the user

flexibility in choosing how to solve their specific problem," said team lead Gray. "It has been used successfully on a number of complex engineering problems, including a lean direct injector design for turbine engines; optimization of wind turbine design to minimize overall cost of energy; and a radarbased systems design for the detection of improvised explosive devices."

The OpenMDAO development team recently released OpenMDAO Version 0.3.0 on their website, http://openmdao.org. This beta version of OpenMDAO includes the new browser-based graphical user interface, along with documentation and screencasts at http://www.youtube.com/openmdao for demonstrating how to use it.

NASA's Office of Safety and Mission Assurance and the Chief Information Officer sponsors the annual competition. A software advisory panel reviews



C-2012-4757

Photo by Bridget Caswell

The OpenMDAO winning team, pictured, left to right: Naylor, Moore, Marsteller, Gray, and Townsend.

entries and recommends winners to NASA's Inventions and Contributions Board.

The NASA App, the agency's first mobile application, and QuakeSim, a software tool for simulating and understanding earthquake fault processes and improving earthquake forecasting, are co-winners of NASA's 2012 Software of the Year.

For more information on the 2012 winning entries and instructions for future submittals, visit http://icb.nasa.gov.

—By S. Jenise Veris